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Exhibit A

10 20 30 40 50 60 70

SEQ ID NO:1 09/428,122 -CGCTCTTACCTAGTAGAGGTTGA-GTGAATTCTTGACTTGTCTCCTATTGGTGTATCTCTTAAAA  
SEQ ID NO:1 09/376,770 -----  
SEQ ID NO:3 09/376,770 -----  
SEQ ID NO:5 09/376,770 -----  
SEQ ID NO:7 09/376,770 -----  
SEQ ID NO:9 09/376,770 -----  
SEQ ID NO:11 09/376,770 -----  
SEQ ID NO:13 09/376,770 -----  
SEQ ID NO:15 09/376,770 TTGAAAAAAAGAGAGTTACGGCAGCTGTAAAGTTTAA-TATTGCTCCCTTGTCCATTATGTAGC

80 90 100 110 120 130 140

SEQ ID NO:1 09/428,122 TATTAAATTCAAACAAAGTATATATTACAATGAAGTCTCTTCCCCAAGTTGTATTCTACAT  
SEQ ID NO:1 09/376,770 -----  
SEQ ID NO:3 09/376,770 -----  
SEQ ID NO:5 09/376,770 -----  
SEQ ID NO:7 09/376,770 -----  
SEQ ID NO:9 09/376,770 -----  
SEQ ID NO:11 09/376,770 -----  
SEQ ID NO:13 09/376,770 TCTAGAACTCCATAGGGAGAT-CGCACGCTAAA-TATGAGAATATAATATGAAGACTTCAGTTCTATGT  
SEQ ID NO:15 09/376,770 GTTCAGACTTGCACTAAACGAGGGTGTACA-TGAGATCGTCTTTCTGTATTAAATATCTTCAT

150 160 170 180 190 200 210

SEQ ID NO:1 09/428,122 TTGCTATTTCCCTTGTCTATGATTG--CTACCG-AGACAGTTGGATTCAAGT-GCGAGTTTGA  
SEQ ID NO:1 09/376,770 -----  
SEQ ID NO:3 09/376,770 AAAAGATGGTATTCTAGTAATTACAGTGAATTAAACGACATATGTTAGGTTCTAAACGCTCTTGG  
SEQ ID NO:5 09/376,770 -----  
SEQ ID NO:7 09/376,770 -----  
SEQ ID NO:9 09/376,770 -----  
SEQ ID NO:11 09/376,770 -----  
SEQ ID NO:13 09/376,770 TGTGGCCCTGCTTGCTCGGGGCTAGCTCTATTGACTCCATGCCAACCTCCACTAAATCCTGA  
SEQ ID NO:15 09/376,770 CTCTAGCCTTCTCTTAATGAGTG---TTCTGCAGATGCTGCCGATCTCACATTAGGAGTCGTGA

220 230 240 250 260 270 280

SEQ ID NO:1 09/428,122 TGGAATAAAATGGTA-----ATTTTTCAGTTCGTGAGAGTCAG-----GAAGATGCTGGAAC  
SEQ ID NO:1 09/376,770 -----  
SEQ ID NO:3 09/376,770 TTCCCTCTCAAGAGCGTATTCTAAAAAAATTCTAAAACCTGTAGATAAGTGAACATTATGATGAAATG  
SEQ ID NO:5 09/376,770 -----  
SEQ ID NO:7 09/376,770 -----  
SEQ ID NO:9 09/376,770 -----  
SEQ ID NO:11 09/376,770 -----  
SEQ ID NO:13 09/376,770 AGATGGGTTATTGGGAGGCAATACAAACTTTCTCGAAATCTACAACGGATGCTGCAGGAAC  
SEQ ID NO:15 09/376,770 CAGTTATAATGGTGATACAAGCACACAGAAATTACTCTAAAGCGCAACTCTGATGCTAGGGCAGC

290 300 310 320 330 340 350

SEQ ID NO:1 09/428,122 ACCTACCTATTAAAGGGAAATGTCACTCTAGAAAATATTCTGGAACAGGCACAGCAATCACAAAAGCT  
SEQ ID NO:1 09/376,770 -----  
SEQ ID NO:3 09/376,770 CTCACGCCTTATCTGATGATGAATTGGGAATAAGACTGCGGAATTAAAGCAGAGATATCAGAACGGAG  
SEQ ID NO:5 09/376,770 -----  
SEQ ID NO:7 09/376,770 -----  
SEQ ID NO:9 09/376,770 -----  
SEQ ID NO:11 09/376,770 -----  
SEQ ID NO:13 09/376,770 ACTACTCTCACAGGAGAGGT---TCTGTATATAGATCCGGGAAAGGTGGTCAATTACAGGAAC  
SEQ ID NO:15 09/376,770 ACCTATATTCTCGATGGGATGT---CTCGATAAGCCAAGCAGGGAA-ACAAACGAGCTTAACCACAGTT

360 370 380 390 400 410 420

SEQ ID NO:1 09/428,122 GTTTAACACACTAACAGGGGATTTGACTTCACAGGTAAACGGGAACCTCTATTGTTCAAACGGTGG  
SEQ ID NO:1 09/376,770 -----  
SEQ ID NO:3 09/376,770 AGTCTCTTGATAGCATGCTCCTGAAGCTTATGGTGTGCGAAAAACGTTGTCGACGTTAGCAGGCAC  
SEQ ID NO:5 09/376,770 -----  
SEQ ID NO:7 09/376,770 -----  
SEQ ID NO:9 09/376,770 -----  
SEQ ID NO:11 09/376,770 -----  
SEQ ID NO:13 09/376,770 GCTTTGTAGAAACTGCTGGCAGCTTACATTAGGAAATACCCCTAAAGTCTGTCGGTAGA  
SEQ ID NO:15 09/376,770 GTTTTCTAACACTGCAGGAATCTTACCTTCTAGGAAACGGATTCTCTTCATTGACAATATTAT

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SEQ ID NO:1 09/428,122 ATGAGCTACTGCTAGCAGGGCTGCTGTTAACAGCAGCGTGGTAGATAAATCTACACAGTTATAGGGTT  
 SEQ ID NO:1 09/376,770 CCCAGTCGAAGTCTCCGGATACCATCAAAGATGGATATGGTCCTTATGATGTGCAGATTCTAGGGCC  
 SEQ ID NO:3 09/376,770  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770  
 TGCAGGTGCTAATATCGCGTTGCTCAT -- GTACAAGGAAGTAAGAATTAA - AGCTTCACAGATTTC  
 TTCGTCTACTGTTGCAGGTGTTGTTAGCAATAACAGCAGCTCTGGGATTACGAAATTCTCAGGATTT  
 500 510 520 530 540 550 560  
 SEQ ID NO:1 09/428,122 TCTTCGCTATCTTTATTGCGCTCCCTGGAAGTTCGATAACTACCGGAAAGGAGCCGTTAGCTGCTCTA  
 SEQ ID NO:1 09/376,770  
 SEQ ID NO:3 09/376,770  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770  
 ATTGCTATGCACAAGGGATTATTACAGAGATGCAGACCGGGAGGGAAAACACTCACTGCAGTGATGC  
 TCTTCGCTGGTGATCACAGAATCTCCAAAATCCGCTTACTACAGGAAAGGTAGC-CTAGTCAGTTTA  
 TCAACTCTCGGATGCTGCGAGCTCTAGGA- CCACAGGTAAAGGAGGCCATTAAA- ATTA  
 570 580 590 600 610 620 630  
 SEQ ID NO:1 09/428,122 CGGGTAGCTTGA-GTTTGACAAAAAATGTCAGTTGCTCTTCAGCAAAACTTTCAACGGATAATGGCG  
 SEQ ID NO:1 09/376,770  
 SEQ ID NO:3 09/376,770  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770  
 CTCTGTATTTAAATGCTTAAACAGGCAAGCCAGTGCATTGGTTACTGTTAACGACTATCTGCAACACG  
 GGTGCACTCCAA- CTGCAAGATATAACACTCTAGTTCTT-ACAAGCAATGCCCTCTGTCGAAGATGGTG  
 CCGATGGCTGGTGTGTTGAGAGTATAGGAATCTGATCTT-AATGAAAATGCCCTAGTGAAATGGGG  
 640 650 660 670 680 690 700  
 SEQ ID NO:1 09/428,122 GTGCTATCACCGCAAAACTCTTCAATTAAACAGGGACTACAATGTCAGCTCTGTTCTGAAAAA-TACC  
 SEQ ID NO:1 09/376,770  
 SEQ ID NO:3 09/376,770  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770  
 AGATTGTGAATGGTAGGATCGGTACTGCGCTGGTTAGGACTTACAACGGAGTTTGTTGGTTAGGAACCT  
 GCGTGATTA- AAGGAAACTCTGCTTGAATTCAAGGAATCAAAAATAGTGCATTGGACAAAATACA  
 GAGCCATCAATACGAAGACTTGTCTTGACTGGAGTACCGGTTGTAGCGTCTGGCAA- TAGC  
 710 720 730 740 750 760 770  
 SEQ ID NO:1 09/428,122 TCCTCAAGAAAGGCGGAGCCATTCAAGACTCCGATGCCCTTACCAATTACTGGAAACCAAGGGAAAGCT  
 SEQ ID NO:1 09/376,770 TTGTGCTTACCTCATTATCTGATAAAACAGCTTCTATCTAGGGAAACTCTTGGGAATGCTCATCAGC  
 SEQ ID NO:3 09/376,770 CTTTTAGAAAAGCGTAAGAAAATTATCAATGTGATGTTGCTATGGTACAGCAGCTGAGTTGGTTG  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770  
 TCTTCGAAAAAAAGGAGGGCGATCTCACGACTCAAGGACTTACCATAGAGAATAACTTAGGGACGCTAA  
 TCGTCGCAACAAGGGGGAGCGATCTATGCTCTGGTACTCTGATGTTCTGAGAAATGCAGGAATCTG  
 780 790 800 810 820 830 840  
 SEQ ID NO:1 09/428,122 CTTTTCTGACAATACCTCTCGGATTCTGGAGCTGCAA- TTTCACAGAAGCCCTGGTACTAT  
 SEQ ID NO:1 09/376,770 GAAATAAAGTTATCTGCAAATATCTATTCTAGCGTTAA- TCCAAACCCCTTAAACTTTATTTTC  
 SEQ ID NO:3 09/376,770 ATTATTTGAGAGATAATTCTATAGCTACTCGCCTTGAAGAGCAGG- TAGGTAGAGGATATTACTTGCTAT  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770  
 ACTCTATATCACTCACTGAATGCGAAAATCTAATAA- AAAAATACTAACCAACCTGATCAT  
 AGTTCAATGAAAACAAAGCAGTGACCTCAGGAGGGCGCT- TAGATTTAGGAGGCCGCTACATT  
 GCTTCGAAACAAACAGTGCAGACAATCAGGAGGGCGCA- TCTCTGCTGAAGGAAACCTTGTGAT

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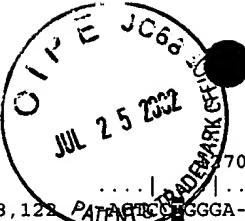
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SEQ	ID	NO:1	09/428, 122	858	860	870	880	890	900	910
SEQ	ID	NO:1	09/376, 770	TTCTAAATGCTAAAGTTCTTATTGACAA	TAAGGTCACAGG	ACCGAGCTCCT	C			
SEQ	ID	NO:3	09/376, 770	ATGCTAAAGTTAAAGAGGCCATGCGTGGT	AGACTCTATCACAACTATAACGGA	AGGAGAAA				
SEQ	ID	NO:5	09/376, 770	CATTGATGAAGTCGACTCGATCTTAATAGATGAAGCTAGAACACCTTAATTATCTCAGGTCTGGAGAA						
SEQ	ID	NO:7	09/376, 770	TTATAATGAAATAAGCTACTCAATTTCGTCAG	CAGAACACTTGGTGGCGATAACGCCCTTAAACATG					
SEQ	ID	NO:9	09/376, 770							
SEQ	ID	NO:11	09/376, 770							
SEQ	ID	NO:13	09/376, 770	CACTGCGAACCATGAGTTGATATTTCACAAAA	TAAGACTCTGGGAATGCTGAAATGGGGAGCC					
SEQ	ID	NO:15	09/376, 770	CTCCAATAA-CCAAATATCTTT-TCGAT	GGCTGCAA-AGCAA-C	T				
				920	930	940	950	960	970	980
SEQ	ID	NO:1	09/428, 122	ACAAAC-GGGGGATATGTCAGGAGGTGCTATCTGTGCTT	ATAAAACTAGTACAG-					
SEQ	ID	NO:1	09/376, 770	ATGCTTCAAATAAACATCCCTTACCCAAATTAAAGACCAAGTGGG	-GCTCTTTTCTCAATTAGAT					
SEQ	ID	NO:3	09/376, 770	AAACATAATCCAGTCTATTGAGCTAAAGAAAAAGTCGCAAGTCTAGTGTATTGCAAAAAGAGCTCT						
SEQ	ID	NO:5	09/376, 770							
SEQ	ID	NO:7	09/376, 770	ATCAATAAGTCCAGCGACTTAATCCTGCTTTGGATGATGGCGC	-TGTCTTAATGATCAATTATTCC					
SEQ	ID	NO:9	09/376, 770							
SEQ	ID	NO:11	09/376, 770							
SEQ	ID	NO:13	09/376, 770	ATAAATTGCTCAGGGGACCTTACATTACTGATAAACACTTCTTTGTT	-ACTTCAAGAAAATGCAACAT					
SEQ	ID	NO:15	09/376, 770	ACAAAT-GGCGGAGCTATT-GATTGTAACAAAGCA	GGGGCGAACCCAG-					
				990	1000	1010	1020	1030	1040	1050
SEQ	ID	NO:1	09/428, 122	ATACTAAGGTACCCCTCACTG-GAAATCAGATGT-TAC	-TCTTCAGCAAC-					
SEQ	ID	NO:1	09/376, 770	TTTGATGAAGACTTGAGAATTCTAGCTA-AAGAATACGACTCTGTTAGCCTAAAGTAGAATTCTGAA						
SEQ	ID	NO:3	09/376, 770	GCAGCGTATCGCATTAGAACGACGTGCGGCTTAGATAGCTTTAGATGTTGATATTCTCTCAAAGA						
SEQ	ID	NO:5	09/376, 770							
SEQ	ID	NO:7	09/376, 770	TTTGCTCCGCCCTATCGTTGACTTGATG-ATCACCATCAACTTATCGATCTCTGTATTCTTATTGATGGT						
SEQ	ID	NO:9	09/376, 770							
SEQ	ID	NO:11	09/376, 770							
SEQ	ID	NO:13	09/376, 770	GCAGGATGGTGGAGCTTTGTTGAGCACAGAACCCATTACCGGTAGTGATTCTATCAATGTGAT						
SEQ	ID	NO:15	09/376, 770	ACCCATCTTGACTCTTCAG-GAAATGAGAGCC-TGC-ATTTCTGAAT						
				1060	1070	1080	1090	1100	1110	1120
SEQ	ID	NO:1	09/428, 122							
SEQ	ID	NO:1	09/376, 770	AAATACATCGACAAACAGCGGGAGGAGCTATCTATGTGAAAAAGCTGAACTGGCTTCCGGAGGACTT						
SEQ	ID	NO:3	09/376, 770	GGGGAAAACATAACATAGCCCTTACCTAATAGCTAAACCCCTCAATTGAAATATTCTCAGGAAATC						
SEQ	ID	NO:5	09/376, 770	TAACAAAAGTTCTGAAGGCATCTGAATTTCGCGCAGCCTTGGTTGTAAGCAAAGGAATGCCCTTG						
SEQ	ID	NO:7	09/376, 770							
SEQ	ID	NO:9	09/376, 770	GGCTCTTATATTCCAAGTGCTTGCAGCTGCTGTTTCCCTCGTGCCTCATCACTACGATGTTG						
SEQ	ID	NO:11	09/376, 770							
SEQ	ID	NO:13	09/376, 770	AGGAAATACTCAGGACAAAAGAGGAGGAGCAGTTCTGAGCTCTCAAGATTGGGAGGGCAGGGA						
SEQ	ID	NO:15	09/376, 770	--AACACAGCAGGAAATAGTGGAGGTGCGATTACCAAATGGTGTATCCTCAGGACGAGGA						
				1130	1140	1150	1160	1170	1180	1190
SEQ	ID	NO:1	09/428, 122							
SEQ	ID	NO:1	09/376, 770	ACCCATTTCAGTAGAAATAGTGTCAATGGAGGTACAGCTCAAAGGTGGAGCCATAGCTATCGAAGATA						
SEQ	ID	NO:3	09/376, 770	AAGCTCGTCCCTGAACATAAAATTCTTAAACCCCTACAAATTACCGTAATGATCTTTGAAACGAGAAA						
SEQ	ID	NO:5	09/376, 770	AATCGTGTGTTACGTCGTACGTGAGCACCCAGATCTCGGCTATGATGATAAAATGGATGTTATT						
SEQ	ID	NO:7	09/376, 770	CGCTTGGGGATTAATATTCCCTCTCGACAGATTCCCTAAAGCTATGCGAGTCATTTCAGG						
SEQ	ID	NO:9	09/376, 770							
SEQ	ID	NO:11	09/376, 770							
SEQ	ID	NO:13	09/376, 770	GGCGCTCTTTCTAATAACGCTAGTGACTCATGCCACCCCTAGGGGAGGCTACATTATCAACACAG						
SEQ	ID	NO:15	09/376, 770	GGAGTGTTATTCTAACACAAAGCTCGAATGCTACTCCIAAGGGCAATTGCGATTCTAGATT						
				1200	1210	1220	1230	1240	1250	1260
SEQ	ID	NO:1	09/428, 122							
SEQ	ID	NO:1	09/376, 770	GTGGGGATTGAGTTATCCCGCGATAGTGGTGACATTGCTTTAGGAAATACAGTCACCTCTACT						
SEQ	ID	NO:3	09/376, 770	ATTCTTAAGGGTCTGATGATCTAAGAACGTTATCTCAAGCGAGGGATATTCCGATCAGCTGAGAC						
SEQ	ID	NO:5	09/376, 770	ATCATGCTGAGCAGAATAAGAACGAGGAGCCTAGAGCGCTTCCAGAGCTCTACATTATTGTTGATGAGCA						
SEQ	ID	NO:7	09/376, 770							
SEQ	ID	NO:9	09/376, 770	CCTTCGGAGACTTCGTTGGAGGGAACTATGTTGCGGGTCATTATCTCTCATTATTACAATCAT						
SEQ	ID	NO:11	09/376, 770							
SEQ	ID	NO:13	09/376, 770	GAGGATCTTGCAGCTCTCAAGGGAGGGATATGTTGAGGGAAATCAGGTCACTAACACAGC						
SEQ	ID	NO:15	09/376, 770	CTGGAGAGATTAGCATTCTGAGATCTGGCAATATCATTTCGAGGGAAATACTACCGAGCACTACAGG						

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SEQ ID NO:1 09/428,122 1270 1280 1290 1300 1310 1320 1330  
PATENT TRADEMARK  
GGGA--CGAATAGAAGTAGTATCGACTTAGGAACGAGTGC  
SEQ ID NO:1 09/376,770 -TACAGCTGGACACAATCAAGAAAAAGGT  
SEQ ID NO:3 09/376,770 CAATTAATGATTGAGCTTACAGATAAAGGA  
SEQ ID NO:5 09/376,770 CAAGTGGGTTGAGTATGCTGGAGGCT  
SEQ ID NO:7 09/376,770 TCAGTTATCGTAGTA  
SEQ ID NO:9 09/376,770 TAAGGGTGCCAGCGT  
SEQ ID NO:11 09/376,770 TCCAAAGCTACCA  
SEQ ID NO:13 09/376,770 TAAGAGAAATGTA  
SEQ ID NO:15 09/376,770 ATTACCTCGGAGTGT  
-----  
1340 1350 1360 1370 1380 1390 1400  
GCTGCTGGTAGGCCATCTACTCTATGATCCCATAACTACAGGAT  
SEQ ID NO:1 09/428,122 GGGAAAATTAAACAGCTTACGTTCTCAGAATCTCTCGAT  
SEQ ID NO:3 09/376,770 GAGAAAATTCAGATGGGATATGGGCAT  
SEQ ID NO:5 09/376,770 ATGCCAGGT  
SEQ ID NO:7 09/376,770 ATGAGCTTACAGATGGCGATTGATE  
SEQ ID NO:9 09/376,770 ATGCAAGGT  
SEQ ID NO:11 09/376,770 ATGTCAGCTATCTATTCTAT  
SEQ ID NO:13 09/376,770 ACTCGGGGAAATAAGTT  
SEQ ID NO:15 09/376,770 ATTCTTCTATGACCTAT  
-----  
1410 1420 1430 1440 1450 1460 1470  
TAAAAGTTATGAGACTCCGCAGATTCTGC  
SEQ ID NO:1 09/376,770 -ACTACAATATAACGGAAACATCA-TCTTCACAGGA  
SEQ ID NO:3 09/376,770 AAACCAAGCAGCACTCTACAACTACAAGTTGTT  
SEQ ID NO:5 09/376,770 TATGAGATCAATTAAAAATTGCAATTCTGAAG  
SEQ ID NO:7 09/376,770 G-AACAAAACGTTGGGCTTCAC  
SEQ ID NO:9 09/376,770 A-----TAAAGGGCTCAAATCCAAAAGGA  
SEQ ID NO:11 09/376,770 GCTGTGATTCTTAT-C  
SEQ ID NO:13 09/376,770 TACGTATCAATGAGGT  
SEQ ID NO:15 09/376,770 TGAATAAAGCTGACGCAGGATCTGG  
-----  
1480 1490 1500 1510 1520 1530 1540  
GAAAAGTTATCAGAGACAGGCCGAGAT-T-CTAAAAATCTTACTTCAAGCTACTACAGC  
SEQ ID NO:1 09/428,122 G-C-TGT  
SEQ ID NO:1 09/376,770 ACAGAGTAGCTTGGCAATTCA  
SEQ ID NO:3 09/376,770 GCTACATTAACCTACATA  
SEQ ID NO:5 09/376,770 CGACAGTTATTACGAGCCC  
SEQ ID NO:7 09/376,770 GAACTTCTCAGGAGCTTATCGC  
SEQ ID NO:9 09/376,770 AGTTCATCAAAGGAGACGTT  
SEQ ID NO:11 09/376,770 GGAAGAATTCA  
SEQ ID NO:13 09/376,770 GAGAGATTGTCACAGCACAGCT  
SEQ ID NO:15 09/376,770 GAGAAACTCTCAGAAGAGGA  
-----  
1550 1560 1570 1580 1590 1600 1610  
AACTCTTCAGGAGGTACTCTATCTTAAACATGGAGTGACTCTG  
SEQ ID NO:1 09/428,122 TATGACCTTGACGACAAAGGA  
SEQ ID NO:1 09/376,770 ATTCTCTTAC  
SEQ ID NO:3 09/376,770 TGATTATCGATGA  
SEQ ID NO:5 09/376,770 ACATACAGGAC  
SEQ ID NO:7 09/376,770 GGGTGA  
SEQ ID NO:9 09/376,770 AGCATGGGTT  
SEQ ID NO:11 09/376,770 GATTGGGGTGC  
SEQ ID NO:13 09/376,770 AGGTGGTT  
SEQ ID NO:15 09/376,770 CACTTTAGTAGAGGGGAG  
-----  
1620 1630 1640 1650 1660 1670 1680  
CAACAGGCAGAATCTCGTCGAAATGGACGTAGGA  
SEQ ID NO:1 09/428,122 -ACTACTCTAGAACCC  
SEQ ID NO:1 09/376,770 GACACGTCCATATCCAAAGGGTT  
SEQ ID NO:3 09/376,770 TGAGGTT  
SEQ ID NO:5 09/376,770 CGAAGCTAAAGAACAC  
SEQ ID NO:7 09/376,770 GAACTAGCAA  
SEQ ID NO:9 09/376,770 GCAAGAAGTTGTA  
SEQ ID NO:11 09/376,770 GCTCTAAATAT  
SEQ ID NO:13 09/376,770 CAGGAGCCAGA  
SEQ ID NO:15 09/376,770 CAGTCGAGGGAT  
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1690 1700 1710 1720 1730 1740 1750  
SEQ ID NO:1 09/428,122 ATAAKTTGGTCATTACATCAGTTATAGACGGTCAAGAAGGCAAAATAGAAACCAAGCTA  
SEQ ID NO:1 09/376,770 PATENT PENDING  
SEQ ID NO:3 09/376,770 TTCCGTCTATGAAAAGCTTGCAGGGATCACCGAACAGCAATTACGGAGTCAGAGTTAAAGAAA  
SEQ ID NO:5 09/376,770 CCTATCGACCTTTTTCAAGCA-----TTAGGTGGCTT-----TCTGGTTTCCATGCTCTCACAAAGCTC  
SEQ ID NO:7 09/376,770 TCGAGTGAACAAATACGAATTGGG-----TAAAGAGATTTCACTCAGCTCGTTAAGAACCCAGGAC  
SEQ ID NO:9 09/376,770 TCCCGCAGCAGCAACACGCAACGAAAA-----AAAGGAAGAGAAGTTCAAACCTCTAGAATCTGGAAAAAA  
SEQ ID NO:11 09/376,770 GATTAAGAAAGGATTGC-CATGCAAAACCAATCGAGCAATTACTAGAATCCTAGCACCCCTATTAAAT  
SEQ ID NO:13 09/376,770 ATCACAAATTATCTATAATGCCATACCATTTACGAAACATCCTATCAATTGTAGCTTCAGCAG  
SEQ ID NO:15 09/376,770 CTCAATGGCCTAGCCATTATAGATTCCCTAGATGGGACAAATAAGCTATCATTAAAGGCGACGGCAG  
1760 1770 1780 1790 1800 1810 1820  
SEQ ID NO:1 09/428,122 CGTCAAAAAAATCTGACTTATCTGGA-----ACCATC-ACCTTATGGACCCGACG-GGCACGTTTAT  
SEQ ID NO:1 09/376,770 AGTATGGCTACATCAATACCAATGTAGACGGTCTCTTCATCCCTACGCACCCGCCCTATTATGATGT  
SEQ ID NO:3 09/376,770 TTTATAATCTTATGTCCTCCAAGTACCCACGTTCAAGCCCTGTTACGCATAGATCATAATGATGAATT  
SEQ ID NO:5 09/376,770 CCACTCGCCATGATCCTGTTATTAC-----CTTATT-TTATTTGAAGAACCTGCT-TATGCTTATT-T  
SEQ ID NO:7 09/376,770 TACTCTTGCGAGGTGCGACTTTAGGG-----GTTGTT-TTCTTCAGGGCTCCCTCTATGGCTCTCT  
SEQ ID NO:9 09/376,770 GGAGAACGCTGGAAAGGCTGAAAAAAAT-----CTGAAT-CTACAGAAGAGAAGCCTGACACAGA-CTTGC  
SEQ ID NO:11 09/376,770 ACGACACTTGTCCAGATAAAATAACTCTTGTAAAT-CCGTTTCAGCGATACCCA-TGTCCCTGTG-C  
SEQ ID NO:13 09/376,770 CGAATAAGAACATTACCCATACAGGA-----ACCTTA-GCACTTGTAAATGCAGAT-GGAGCTTCTAT  
SEQ ID NO:15 09/376,770 CAAGTAAGGATGTTGCTTATCAGGG-----CCTATC-ATGCTGTAGATGCTCAG-GGAACTTAT  
1830 1840 1850 1860 1870 1880 1890  
SEQ ID NO:1 09/428,122 GAAA-ATCATAG-TTAAAGAAATCCTCAGTCTACGACACTTAGAGCTCTAA-----GCT  
SEQ ID NO:1 09/376,770 ACTTATGAGCTAAGTGAAGGGTCTCTTATAAAGTTGGTTAATTAAATTACTGGGAATACCCATACA  
SEQ ID NO:3 09/376,770 TTAT-ATCACAGAGCGTGAGAAGTACCCCTATTGTTAATGAGATTGGACTATTATGGCAAGGGG  
SEQ ID NO:5 09/376,770 TAAC-AGCATCA-CTTCCCTTACTGGGAGCTGTTGCTGTTGGGCTCATTTG-----A-GGT  
SEQ ID NO:7 09/376,770 CCATTAGCATTAATTTCGTTGCTTAGGGATTCTCTACTGACTAACAAATCAGCGG-----CA-GGA  
SEQ ID NO:9 09/376,770 TGATA-AGTATGCTCTGGAATTCTGAAATCTCTGTAAGAACCTCCGGCTGCGT-----GATGCA  
SEQ ID NO:11 09/376,770 AAAT-AGAAGAAG-ATGAAATTCCGGAGATCTG-----CAGTATCAGACTACTAG-----GTACT  
SEQ ID NO:13 09/376,770 GAGA-ACCATAC-CTTGCAGACTCTCAAGACTATAGTTGTAAAGTTATCCTCAG-----GA-GCG  
SEQ ID NO:15 09/376,770 GAGC-ATCATAA-TCTAGTCACAGCAGGTCTTCTTAAAGACGCTT-----GCA  
1900 1910 1920 1930 1940 1950 1960  
SEQ ID NO:1 09/428,122 TCTGGAACTTAAACAAGCACCCAGTGA-----CT-----CCAGATCTATAATGEG-----TGA  
SEQ ID NO:1 09/376,770 AAATCTGACGTATTTACAGAACCGT-----CTCTCCAGGAGATACTTCAATCCTTAAAGCTA  
SEQ ID NO:3 09/376,770 AACCTTATCCTGTTGAGAACATCTGAGGGTCTCTGAGAACCTCTCTGGATTTCAGACAGAAC  
SEQ ID NO:5 09/376,770 TTCTTATCCTGTTCTACATTTCCTA-----CC-----GAATTTAAACACAGA-----TAT  
SEQ ID NO:7 09/376,770 AAAAAGGTGGCTCAGCAGCTTCA-----CAACCGTAGGCTGCTGGTGAATCGCGCTGCTAC  
SEQ ID NO:9 09/376,770 ATAGGAGACGATGCTCTCAGAACACA-----TT-----CTTCTCTGTACAACAGAAAATT  
SEQ ID NO:11 09/376,770 CTCCTGAAACGTTATTCGGAGCGT-----TTTTCAAGCTCTCTCTGTAAA-----TGG  
SEQ ID NO:13 09/376,770 GGAGGGACTTAATTACACAGATGCTT-----CT-----CAGAACCTCTGAAGTAGCTCCCTC  
SEQ ID NO:15 09/376,770 CAAGGAACGATGACTACAGATATCC-----CC-----GATACCCCAATTCTAAA-----TAC  
1970 1980 1990 2000 2010 2020 2030  
SEQ ID NO:1 09/428,122 GAAATTCCATTACCGCTATCAGG-GAACTTGGGCC-----AATTGTTGGGG-----GACAGGGGTTCT  
SEQ ID NO:1 09/376,770 GAAGATACTGAGCAACGTTAAG-AAATACGGCTACTTCAAACCGTTAGTGTCTATACAGTTCT  
SEQ ID NO:3 09/376,770 GGATAGGCTACTGTATGCAAT-----GCTAAGAATCATGCTCAAGAACGAGAAA-TTAAAGCAGGAGCAG  
SEQ ID NO:5 09/376,770 CAAGAAGTTCACC-CATTTGAG-AACATCAAACA-----AAAGTTAAAGA-----TAAAGACTCTCAT  
SEQ ID NO:7 09/376,770 TGTGGGCTATATCCCGATGCT-ATCTCTACTCTCCCGTAATTCTAGAACTTGGAAAGATCTCT  
SEQ ID NO:9 09/376,770 -AAGACCCAGCTCTGCAATCCAC-AGCTTGGACTAC-----CTGGTCAAAAC-----GACTCCACCC  
SEQ ID NO:11 09/376,770 CTCGTTCCAATCCAGCATCAAGGAATTCTAGGCTACG-----GTGAGGCACTCA-----ACAGCTCTATCTT  
SEQ ID NO:13 09/376,770 TAGACCACATTATGGCTATCAAG-GACATTGGAAATGTCAAGTCACTCCAGG-----AACGGGAATCTAA  
SEQ ID NO:15 09/376,770 TACGAATCACTATGGTATCAAG-GGAACCTGGAT-----ATTGTTGGGT-----CGACGATGCAACT  
2040 2050 2060 2070 2080 2090 2100  
SEQ ID NO:1 09/428,122 ACGAC-----TGCAACCTTCAA-----CTGGACTAA-ACTGGCTATTTCTTAATCCCG  
SEQ ID NO:1 09/376,770 CAACTTGATCCATTGGGAATCGGGATCAATACCGAGAATTTCCTG-TAGAAGTCAAAGAAACACAACA  
SEQ ID NO:3 09/376,770 GAAATTAG-GTGCTGTACTGTAGCTACAAAATATGGCTGGTCAGGAGACAGACATCAAACAGATAATG  
SEQ ID NO:5 09/376,770 AGAGCT-----GATCAAATGATTTAAAATTTTGGAGCAG-CCTTAATTCTACATAACGTTA  
SEQ ID NO:7 09/376,770 TAAGCT-----TATCCAACACAAGAACAAAATCAGGACAAAGCTT-TGTTGATGATATGATTCTAAAAA  
SEQ ID NO:9 09/376,770 CCAAG-----GTAAAATTTAAGA-----GAAGCGCT-TATCCAAGCAAGGAATACCTCATA  
SEQ ID NO:11 09/376,770 CAGAT-----TCCTGAGTATGAA-----C-TACCTAAATGGAGAAAAAGTTATT  
SEQ ID NO:13 09/376,770 CCGAGC-----CAGGCAATTAGA-----ATGGGTGCG-GACAGGATACCTTCCGAATCCG  
SEQ ID NO:15 09/376,770 GCAAAAA-----CAAAATGCTACCTTAC-----TGGACTAA-AACAGGATAACAGCGAATCCG



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SEQ ID NO:1 09/428,122  
 SEQ ID NO:1 09/376,770  
 SEQ ID NO:3 09/376,770  
 SEQ ID NO:5 09/376,770  
 SEQ ID NO:7 09/376,770  
 SEQ ID NO:9 09/376,770  
 SEQ ID NO:11 09/376,770  
 SEQ ID NO:13 09/376,770  
 SEQ ID NO:15 09/376,770

2110 2120 2130 2140 2150 2160 2170  
 AACCTA-TCACCTCTTAGCCTTAATGCTTATGGAAATGCATTATACATA-TTACCTCT-CTCCATT  
 GAAAACCTACGGTTATCTTAGGATTAGTTCTCTTCAACATCTTTCGAGGAATTGAACT-ATCTGAA  
 AAAGCTGTGATCGTAGGCGGCTCCATGTGATCGGTAACACGGCATTCATCCGTCGAATTGATAGACA  
 AAAAGC-AAGCTCTTTAATTATAGAAACTGCACAGTCTCCCTATAAT-----TACT-GCTCAA  
 TGCGGC-AAGCTCTATCAGGATATCGGATACCGATACCCCTGGCAATTATG-TTCGCGACA-GATTCCC  
 CGGAGC-AATTGGGACGAACTGCTATTGGTGCAGAAAACATCTTATGGCT-CTC-AAGA-ATATGCA  
 CG-AGT-ATCTCAAGGCTCTTCTTGATGCTAAAGA-TTGGATGGAAT-CCCTAAGA-ACAGGGA  
 AACGGC-AAGGATCTTAGTCCCAATAGCCTGTGGGGTCTTTGTCATC-AGCGTCT-ATCCAAG  
 AACGTC-AGGGACCTTTGGTCTTAATAGCCTGTGGGGTCTTTGTCATC-TOCGCTCC-ATTCAGA

2180 2190 2200 2210 2220 2230 2240  
 ATCTTATCGAG---ACTGCAACGAAGGGCTGCAGGGAGCCGTGCTTGTGCTG-CTGGATTATCT  
 AGTAATTGATCTATTGGAGCTAGAAATATATTTCTAAAGGTTTCGTTGCTA-AGAGGGGTGGA  
 GTTGCCTGGCGTTGTGCTCGTTAGGAGACCCCTGGCGCTGCGAAATTCTTATCTTTGAAGATCGG  
 TCTTCAAAGAAA-TTTTTATAAAGCAGAACCTCGATAGGAATTCTCTTGTGCTGATTCTT  
 CTCTTCTAGAAG-GATACGATTATGAACTGCTTAATGAACTCCCTATGTGCGAGGAAAATTCT  
 GACCAACTGAAT-CTTCTCTTCAGGGCTCGCTTTGTA-CTAGAACGTA-CTGGAGACACA  
 ATCTTCTGACCT-TCATGTTGGAACTACTACCGTCGCG-TGAATCTT-TAAAATACACA  
 AAATCAAGCTAA-ATAGTAGCCAAATCTATGTCAGGAACGGGGAGCTGGGGAG-CTGGAAATTGCT  
 GCCTCATGGACCC-GGAGCACAAGTCGTTATCTCGTCAACAAATTGTTGAT-CTAGGAAATCGGG

2250 2260 2270 2280 2290 2300 2310  
 A-ACTTCTCCATAAGGATAGTCACAAACACGA-CGGGGTTTC-GCCATTGAGTGGCGT-  
 GAAACATCTATTCTAAAGCCAACTTCGGGGACA-AAGTCACAGACTATACCTTGAAGTGGACCAA  
 CTGATCGGACTATTGGCTCCCTAAATTGAATACCCCTATCCGTCATTTCGTCCTCCAGAAGGAGAG  
 G-ACCTTGCTCTACCGGCC-ACAATTTCGCTA-AAGAATTAA-GATGGAGAAGTTGAG-  
 CCCGACCATGTTAAC-CA-ATGAGGTGG-AG-GACAATCTCA-CCGTTATAATCTACCT-  
 C-CATACCTGTGATCGCTACTTCTTGCTTCAA-GACCGCTATA-CCTACCAAGATATGCT-  
 AAACACTCACCCCTAGC-AC-ATGCTTGGAAACTTATGAAACCTCTCTAAACACGGGA-  
 A-ATTCTCTACATAGAGAT-AAAATTAAATGAG-CACGGCTATC-GCCATTAGCGGTGTCGGT-  
 G-ATTTTTGCTGATGAGTCAGAAAGGAAACCAA-CGTAGTTATC-GTCAATTAGCGCGGTT

2320 2330 2340 2350 2360 2370 2380  
 -T-ATGTCATAGGAGGAACCTACATACTT-GTTCAAGATAGATTCTTGTGCTGCATTGT  
 ACCTCATTTCTAAACACTCTTGGATTAGGATTAGAATTAATCAATTACAGAGCATTATCT  
 CGATGTCGGACCTTAATTAAATACACTACAGAACACAGCACAGAACGTGTCGAGGGAGAAAATATAC  
 -----GTAAGCAGGAGTTAACACACGGA-AGGAATCTGAGTTAAAGGCCCTCGT  
 -----TTCATACCTATAAG-AATGCTGCGGGT-CT-TCCTCTGCTTGGTTAGTGAAGAT-GC  
 -----ATTGTCAGCCTTCTTCAATGAAAGGAAT-GGCAACAGATTAAAAAGGCAGGGTCCCT-AC  
 -----TTTATCTCCACTATTTCATACACACAA-A-  
 -----T-ATCTTCTGGGAGTTGGCACTCATGTTTCTGATGCTACGATAATGCGCTTTTGTG  
 -----T-ATGCAATTAGGAGGAGCTTCACTGG-CTTCTCACGG-CTTCTGAATTTCCTTATTTGCTTGT

2390 2400 2410 2420 2430 2440 2450  
 CAGCTCTTGGAAAGAGATAGAACTACT-TTGTACGTTAAGAAATCAAG-GTACAGTCT-ACGGAGGAAC-  
 AAAGAATTATGCTGTCCAAACTATGGGGAACTGTCAGCACACGATATCTTGAACGAACACCTGAAAT  
 TATCCCTAAAGCATACCTTAGACTATGATGTCATGAAATAGCAGAGACAAGCGATATACGCTTCCGC  
 CGAAACATTGCTCAAGAAATTCCTA-TGAAGACTCGTCATCACAGT-G-TGAAAC-ATGCAAGCAC-  
 AAAGCATTCTAGAGAACGGCAGCAAT-TAAATATTGGACCCGCTGAAAGTGATC-ATTCTCCATCT  
 GTACCCAGTGGCAACTACAACTTC-TCATGACAGAAACTCGTAACCTGCAAGC-AGTTCTTACC-  
 -----CGCTCTCAGTAGAGATAAAACTACG-TAGTATCCAAAAATATG-GAACTAGCT-ACCTAGGGTC  
 CAGCTTTTGGCTACGACAAGGACCATC-TTGTGCTAAGAACCTATA-CCCATGTAT-ATGCAGGGC-

2460 2470 2480 2490 2500 2510 2520  
 -TCTCTATTACCAAGCACACGAAACCTATATCTCTTCC-TTGCACACTACGGCTTGTTCGTTGCT  
 ACGGTCTATTCTTATGAGGAAGTCACAGAGTTACATGAAAGAACTGTAAGTTCTCTTCTAGGGCAATAT  
 CATGATGTCCTACATGCGGAATGTTGCTTCTGAAAGAAATCTATGCCATGTTGCTCTGATGG  
 -CGTAGTCTCTAACTCCAAAGATATGCTGTTGCTAT-TG-GTACATGCTC-AAAAATAT  
 TTGCTACTTTTCCATAAAAGCTCTCAAGAGTTTGGGAAATTCAAGAGGTACGTTCTATGATGAAATT  
 -TCGTACGATTACTTGAAAGTCGCTTCTAATTAC-TCGATAGCTTAAAGCTG-AGGAATC  
 -----GTATTTCTGAGGATACCTAGAGTTAGAAGTCCACAGGGATTCTACTGATAGCTCTCAGAAGCTT  
 -AATGAGTTACCGACACCTCGGAGAGCTAAGACCCCT-GCTAAGACCCCT-GCTAAGATTGTCAGGAAATT

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2530 2540 2550 2560 2570 2580 2590  
SEQ ID NO:1 09/428,122  
SEQ ID NO:1 09/376,770  
SEQ ID NO:3 09/376,770  
SEQ ID NO:5 09/376,770  
SEQ ID NO:7 09/376,770  
SEQ ID NO:9 09/376,770  
SEQ ID NO:11 09/376,770  
SEQ ID NO:13 09/376,770  
SEQ ID NO:15 09/376,770  
2600 2610 2620 2630 2640 2650 2660  
SEQ ID NO:1 09/428,122  
SEQ ID NO:1 09/376,770  
SEQ ID NO:3 09/376,770  
SEQ ID NO:5 09/376,770  
SEQ ID NO:7 09/376,770  
SEQ ID NO:9 09/376,770  
SEQ ID NO:11 09/376,770  
SEQ ID NO:13 09/376,770  
SEQ ID NO:15 09/376,770  
2670 2680 2690 2700 2710 2720 2730  
SEQ ID NO:1 09/428,122  
SEQ ID NO:1 09/376,770  
SEQ ID NO:3 09/376,770  
SEQ ID NO:5 09/376,770  
SEQ ID NO:7 09/376,770  
SEQ ID NO:9 09/376,770  
SEQ ID NO:11 09/376,770  
SEQ ID NO:13 09/376,770  
SEQ ID NO:15 09/376,770  
2740 2750 2760 2770 2780 2790 2800  
SEQ ID NO:1 09/428,122  
SEQ ID NO:1 09/376,770  
SEQ ID NO:3 09/376,770  
SEQ ID NO:5 09/376,770  
SEQ ID NO:7 09/376,770  
SEQ ID NO:9 09/376,770  
SEQ ID NO:11 09/376,770  
SEQ ID NO:13 09/376,770  
SEQ ID NO:15 09/376,770  
2810 2820 2830 2840 2850 2860 2870  
SEQ ID NO:1 09/428,122  
SEQ ID NO:1 09/376,770  
SEQ ID NO:3 09/376,770  
SEQ ID NO:5 09/376,770  
SEQ ID NO:7 09/376,770  
SEQ ID NO:9 09/376,770  
SEQ ID NO:11 09/376,770  
SEQ ID NO:13 09/376,770  
SEQ ID NO:15 09/376,770  
2880 2890 2900 2910 2920 2930 2940  
SEQ ID NO:1 09/428,122  
SEQ ID NO:1 09/376,770  
SEQ ID NO:3 09/376,770  
SEQ ID NO:5 09/376,770  
SEQ ID NO:7 09/376,770  
SEQ ID NO:9 09/376,770  
SEQ ID NO:11 09/376,770  
SEQ ID NO:13 09/376,770  
SEQ ID NO:15 09/376,770

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2980 2960 2970 2980 2990 3000 3010  
P-----TCGTTAGTAACTCCGACTGTACGACAACTCGCAATTAGCGATTCTGGAAAACCTTCGG  
GACAACTTAATTAGTGCCTTGTATTCTTAGACTCAGGTTTGTCTTACAAGAGTATAAGATTTC  
TATTC-GTATTACGGTTGGCGGCATCTTCCGCTTGAACCTGACCGTAGAGCCTAATCTCGTGTCAA  
TGGGC-GTTGCTTAAATGAA  
TACG--ATCACGCCAACACCTGCAGGAGGCCACCACAGTATTATGACAGCAATTGATGTAAGAAGAT  
TCCAG-ATAAAAAATTAACCTTGTG  
-----  
3020 3030 3040 3050 3060 3070 3080  
TACGAATTGGCAAGACAAGCTTGTCTTCGTCAGGGAACCTTTGCTTAACCAAATTGAA  
CTTAAAGATCTACCTAGTAGTGTGCTGGATTGGCTCGCCTCGATGTAATGAAATAATGTCCTGTTATG  
CAACGTGATTCCACTGTAGCTACCGCTTTCTATAATAATGTAATTACGGTCCGTTAGAGTTGACTGTA  
ATGTCAGAAAATTAAATAGAACAGAATTCCCTGACATTGCTGTGATTCTTATCAAGAAATCCTACCAGA  
-----  
AAACAATCTCTCCAGACAAGGATTACAACGTGCTTAGGGAACCTGTCTCATAAATCTGGATTGAA  
TACAAGCTTGTCTAGACAAGCTTGTACGTGCTGGAAATCATGCTTGTCTCAAACCTTGGAA  
3090 3100 3110 3120 3130 3140 3150  
GCCTTAGCCAATTCTTTGAATTGCGTGGGTATCTCGCAATTACAATGACTAGGAGCAAAT  
TTAGGATTGGTGGCCCTTCCGCTCAACCGAGACTTGAATGGAGAAAAAATTGATGATCTCAGCGAT  
GTTACAGATTCTGAAGATCAAGATAAGAAATAACCTAGAAGGAGGAGTCTTCTAGGATTGTTCA  
AATCCGCATCCAGCCTTAGGAAGAATTCAAGATTCTAATTGATACGTTGTCGCTCAGGAGGCAATT  
-----  
GTGTTAGTCACGGAGTATTGAATTGCGGGATCTCTCGTAATTAAACATCACTCGGGGTAATT  
GTTTCAGTCAGTTGAAGTCGACTGCGAGGTTCTCGTAGCTATGCTATGATCTGGAGGAACAT  
3160 3170 3180 3190 3200 3210 3220  
ACCAATTCTAATGCGTAGCTTGGTAAAGAGGCTCCATACATCGAAGGGAAAAGAGCTT-TTAAAG  
TCTCTTGCTTCTAGGGGCATGTTCAAGATAAAATTAGGACTTATCGAAGGAAATCTTGTGTT  
AGGCTACATAGTTTATTAAATGGGTCATTCTGACCAAACCTGGTCAATT  
AGGAGGCTGCTGAGCTGCA  
-----  
GGCAGCATCAGGAGGCACAGGTGGTTAGGAGGCACTCAGGGTGTCAACCTGAGCTGAGAGCTGCA  
-----  
ACCGATTAAATAGGGAACTGAGAGTCTTATTGTAGAGAGTATTACAAGGATTGAGACGAAAGAG  
TCGGATTAAATCC-TAAGTTTCAACGAGATAGCATCAGGGTAAGCCAGGGCTCT-ATGTAAGAG  
3230 3240 3250 3260 3270 3280 3290  
ATTTCTTGA-AGGCTCTTTCGATT-TCGATTCCATTAGTGTGTTGCTAAACACTTC  
TCAGAAAAGGCTTGTACCCCTTCTCTATACCCAAAGTGTAG-  
AATCCAGAATTCTCGGATTGCCGCTATGAGGAACCTGGCATAGTGGCTAGTGTATTGTTGCTATA  
GCTGCAAAGCAGATGC  
-----  
ATTTCTTGTAGGTATCTCCACAGGGCTAGTTCAATTCTATAGTTCA-  
ATTCATAG-AGCCCTCTTGTCT-  
CAGAAA